

I Claim:

1. An internal combustion four-cycle engine with one or more cylinders arranged radially around the axis of engine rotation with cam driven pistons that compress inward and with a central hub that acts as a rotary valve for all the pistons around it.
2. The central rotary valve hub of the system of claim 1 that includes: a passageway for a fuel/air mixture to enter the cylinders during the intake stroke, an ignition device, a passageway for exhaust gasses to exit the cylinders during the exhaust stroke, and passageways for coolant.
3. The system of claim 1, wherein the cam assembly can be articulated to permit variable engine displacement and variable engine compression during operation.
4. The system of claim 1, wherein the cam assembly is not articulated and consists of one fixed cam surface.
5. The system of claim 1, wherein a water injector may be added near the spark plug to increase power. This would add the function of a steam engine powered by the heat of combustion.
6. The system of claim 1, wherein the engine of the type of the present invention may be made with multiple rings of radially aligned pistons and any number of cylinders within those rings therefore providing for an unlimited number of pistons and configurations.
7. The system of claim 1, wherein the ignition devise is either a single spark plug, multiple spark plugs or a combination of spark and glow plugs.
8. The system of claim 1, wherein the engine of the type of the present invention may be made with various locations of the intake passageway, exhaust passageway, and

ignition device within the hub with respect to the cylinder cycles thereby changing their timing with the cycles. This can also be achieved during engine operation by including mechanisms within the hub that change the dimensions and or locations of these devices within the hub. In addition a mechanism that rotates the cam with respect to the hub would have a similar tuning effect by advancing the cylinder cycles.

9. The system of claim 1, wherein the engine of the type of the present invention may be made with various locations of the coolant passageways within the hub to create different cooling effects and provide for liquid or air cooling.

10. The system of claim 1, wherein the engine of the type of the present invention may be made with various locations of coolant passageways within the cylinder block to create different cooling effects.

11. The system of claim 1, wherein the engine of the type of the present invention may be made with various locations of lubricant passageways within the hub to create different lubrication and cooling effects.

12. The system of claim 1, wherein the engine of the type of the present invention may be made with various locations of lubricant passageways within the cylinder block to create different lubricant and cooling effects.

13. The system of claim 1, wherein the engine of the type of the present invention may be made with a sleeve around the piston that also acts as a cylinder liner that is spring loaded to form a tight seal with the hub.

14. The system of claim 1, wherein the engine of the type of the present invention may be made with seals that are spring loaded to form a tight seal between the hub and the cylinder liners.